Abstract of the Invention

Isolated genomic sequences that are differentially expressed within seed-coat tissues are disclosed. These DNAs are expressed within the inner integument, thick, or thin, walled parenchyma, endothelium, palisade, hourglass, or stellate parenchyma cells of the seed-coat. Promoter regions obtained from genomic sequences that are differentially expressed in seed-coat tissues, and their use for directing seed-coat specific expression of genes of interest within transformed plant cells or plants are also disclosed. Exemplified promoters include those obtained from the differential screening of a seed-coat library and cryptic promoters obtained using T-DNA tagging using a promoterless marker gene.